Annual net productions of sargassaceous species in coastal areas with different environmental characteristics in Kyoto Prefecture, the Sea of Japan

Kousuke Yatsuya, Tomokazu Nishigaki, Akio Douke, Masashi Itani and Yozo Wada

Sargassaceous plants dominate at various types of coasts in Kyoto Prefecture, the Sea of Japan. Amino is an open coast exposed to wave action and has lower nutrient concentration. Yoro is protected from northwestern winter storms by the Tango Peninsula and has intermediate environmental characteristics between open and enclosed coasts. Maizuru Bay is an enclosed site with a low degree of water motion and higher nutrient concentration. Annual net production of sargassaceous plants was investigated by the stratified clipping technique at the three sites. In Maizuru, annual net production of *Sargassum autumnale* and *S. siliquastrum* was estimated at 3.9 and 4.0 kg dry wt/m², respectively. In Amino, it was estimated at 0.8, 0.7, and 1.1 kg dry wt/m² for *Myagropsis myagroides*, *S. siliquastrum* and *S. confusum*, respectively. In Yoro, our previous work reported 1.2, 1.5, 2.4, 2.1 and 1.4 kg dry wt/m² for *M. myagroides*, *S. siliquastrum*, *S. patens*, *S. macrocarpum*, and *S. piluliferum*. The annual net production and maximum length of *M. myagroides* and *S. siliquastrum* in different sites were more variable than those of different species in the same site. The relations between environmental characteristics and production of sargassaceous plants are discussed.